

chain nodes :

6 8 12 13 14 25 26 27

ring nodes :

1 2 3 4 5 19 20 21 22 23 24

chain bonds :

3-12 5-6 6-8 8-23 12-13 13-14 20-25 25-26 26-27

ring bonds :

1-2 1-5 2-3 3-4 4-5 19-20 19-24 20-21 21-22 22-23 23-24

exact/norm bonds :

1-2 1-5 2-3 3-4 3-12 4-5 5-6 6-8 8-23 12-13 13-14 19-20 19-24
20-21 20-25 21-22 22-23 23-24 25-26 26-27

G1:C,O

G2:C,N

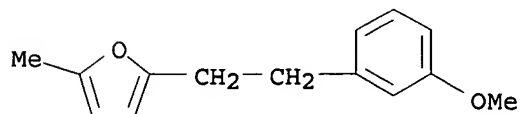
G3:O,S

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 8:CLASS 12:CLASS
13:CLASS 14:CLASS 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom
25:CLASS 26:CLASS 27:CLASS

AN 141:243250 CA
 TI Facile Synthesis of Oxabicyclic Alkenes by Ultrasonication-Promoted
 Diels-Alder Cycloaddition of Furano Dienes
 AU Wei, Kun; Gao, Hai-Tao; Li, Wei-Dong Z.
 CS State Key Laboratory of Applied Organic Chemistry, Lanzhou University,
 Lanzhou, 730000, Peop. Rep. China
 SO Journal of Organic Chemistry (2004), 69(17), 5763-5765
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
 AB Ultrasonic irradiation effectively promotes the Diels-Alder reaction of
 substituted furans with reactive dienophiles, i.e., di-Me
 acetylenedicarboxylate and di-Me maleate. Regiospecific furan Diels-Alder
 cycloaddn. of 2-alkenylfurans with DMAD furnished functionalized
 oxabicyclic alkenes in good yield under ultrasonication condition.
 ST furan alkenyl Diels Alder acetylenedicarboxylate ultrasound
 IT Diels-Alder reaction
 Sound and Ultrasound
 (preparation of oxabicyclic alkenes by ultrasonication-promoted Diels-Alder
 cycloaddn. of alkenylfurans)
 IT 98-01-1, Furfural, reactions 620-02-0, 5-Methylfurfural 762-42-5,
 Dimethyl acetylenedicarboxylate 874-98-6, 3-Methoxybenzyl bromide
 2969-81-5, Ethyl 4-bromobutyrate 685898-83-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of oxabicyclic alkenes by ultrasonication-promoted Diels-Alder
 cycloaddn. of alkenylfurans)
 IT 19480-10-5P 30336-13-1P, 2-Furanpentanoic acid 753000-26-9P
 753000-27-0P 753000-28-1P 753000-29-2P 753000-30-5P 753000-41-8P
 753000-42-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of oxabicyclic alkenes by ultrasonication-promoted Diels-Alder
 cycloaddn. of alkenylfurans)
 IT 753000-31-6P 753000-32-7P 753000-33-8P 753000-35-0P 753000-36-1P
 753000-37-2P 753000-38-3P 753000-39-4P 753000-40-7P 753000-43-0P
 753000-44-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of oxabicyclic alkenes by ultrasonication-promoted Diels-Alder
 cycloaddn. of alkenylfurans)

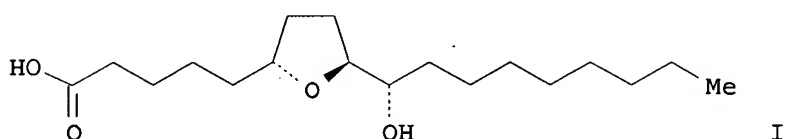
RN 753000-30-5 REGISTRY
ED Entered STN: 28 Sep 2004
CN Furan, 2-[2-(3-methoxyphenyl)ethyl]-5-methyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H16 O2
SR CA
LC STN Files: CA, CAPLUS, CASREACT



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

AN 2004:805222 CAPLUS
 DN 142:6320
 ED Entered STN: 04 Oct 2004
 TI Cyclic ethers: Stereodivergent construction of cyclic ethers by a regioselective and enantiospecific Rhodium-catalyzed allylic etherification: Total synthesis of gaur acid
 AU Evans, P. Andrew; Leahy, David K.; Andrews, William J.; Uraguchi, Daisuke
 CS Department of Chemistry, Indiana University, Bloomington, IN, 47405, USA
 SO Angewandte Chemie, International Edition (2004), 43(36), 4788-4791
 CODEN: ACIEF5; ISSN: 1433-7851
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 CC 26-3 (Biomolecules and Their Synthetic Analogs)
 Section cross-reference(s): 67
 GI



- AB A dramatic enhancement of the stereospecificity of the title reaction was observed with trimethylphosphite-modified copper(I) alkoxide reagents. The combination of this reaction with ring-closing metathesis provides a direct approach to cis- and trans-disubstituted cyclic ethers. A seven-step total synthesis of the natural product gaur acid (I) highlighted the potential of this methodol.
- ST cyclic ether prepn rhodium catalyzed allylic etherification metathesis; gaur acid prepn abs configuration
- IT Ethers, preparation
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (cyclic; preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)
- IT Asymmetric synthesis and induction
 (of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)
- IT Absolute configuration
 (of gaur acid)
- IT Etherification catalysts
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)
- IT Etherification
 (regioselective; preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)
- IT Metathesis
 (ring-closing; preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)
- IT 121-45-9, Trimethylphosphite 544-92-3, Cuprous cyanide 603-35-0, Triphenylphosphine, uses 7681-65-4, Cuprous iodide 7758-89-6, Cuprous chloride 12122-73-5 14694-95-2 15785-59-8 172222-30-9, Grubbs catalyst
 RL: CAT (Catalyst use); USES (Uses)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification

and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

IT 765956-30-7
 RL: PRP (Properties)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

IT 797816-69-4P, (-)-Gaur acid
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

IT 796843-80-6P
 RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

IT 25047-67-0, Heptyllithium 220433-62-5 344795-89-7 351026-61-4
 639071-46-8 796843-74-8 796843-98-6 796843-99-7 796844-00-3
 796844-01-4 796844-02-5 796844-03-6 797816-80-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

IT 796843-75-9P 796843-78-2P 796843-79-3P 796843-81-7P 796843-82-8P
 796843-83-9P 796843-84-0P 796843-85-1P 796843-86-2P 796843-87-3P
 796843-88-4P 796843-89-5P 796843-90-8P 796843-91-9P 796844-04-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

IT 4039-32-1, Lithium bis(trimethylsilyl)amide
 RL: RGT (Reagent); RACT (Reactant or reagent)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

IT 796843-76-0P 796843-77-1P 796843-92-0P 796843-93-1P
 796843-94-2P 796843-95-3P 796843-96-4P 796843-97-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD

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IT 796843-76-0P 796843-77-1P

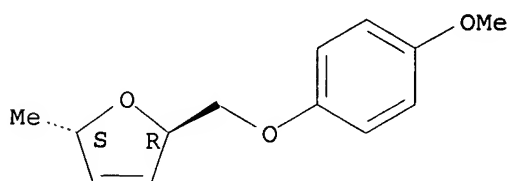
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of cyclic ethers via rhodium-catalyzed allylic etherification and ring-closing metathesis and potential of this methodol. in total synthesis of gaur acid)

RN 796843-76-0 CAPLUS

CN Furan, 2,5-dihydro-2-[(4-methoxyphenoxy)methyl]-5-methyl-, (2R,5S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 796843-77-1 CAPLUS

CN Furan, 2,5-dihydro-2-[(4-methoxyphenoxy)methyl]-5-methyl-, (2S,5S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

